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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,040	07/07/2003	Magnus Fagrell	6796-000003/US/DVA	4704
30593	7590	02/08/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			HOANG, TU BA	
P.O. BOX 8910			ART UNIT	
RESTON, VA 20195			PAPER NUMBER	
			3742	

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/613,040		FAGRELL ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Tu Ba Hoang		3742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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**Specification**

The disclosure is objected to because of the following informalities: in the specification, on page 17, at line 22, the term "magnets8" should be changed to "magnets 18". Appropriate correction is required.

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Amended claims 23-32 and newly added claim 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 as now amended is incomplete for omitting essential structural cooperative relationships between elements such as heating apparatus, applicator, deflector, waveguide, and resonant cavity, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. It is also unclear how such resonant cavity defined.

In claim 25, at line 3, the term "once" is misspelled. It should be read as "one" instead of "once". And at line 12, the term "position" must be changed to "positions" since it is referred to first and second positions. The recitation of "a waveguide applicator" at line 5 renders the claim indefinite because it is unclear whether this "waveguide applicator" the same as the applicator recited in the preceding claim 23. If it is not, structural cooperative relationships between them are suggested otherwise "a waveguide applicator" should be "said applicator"

In claim 33, there is insufficient antecedent basis for "the at least one reactant" recited at line 2 in the claim or from the preceding claim. Claim 33 should be dependent from claim 32 instead.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Minakawa et al (EP 0552807) cited by the Applicants. Minakawa et al shows a microwave oven or heating apparatus for heating an object or sample, the oven comprises a heating chamber 1 having an applicator or turntable plate 8 at which the sample can be inserted onto, the heating chamber 1 is also defining a resonant cavity, a magnetron 3 for generating electromagnetic radiation at a predetermined output power level through a waveguide 2, a deflector or reflector 9 (shown in Figures 1-2) is rotated (Figure 2) for adjusting a coupling factor between the waveguide 2 and the resonant cavity or heating chamber 1 (i.e., impedance matching, "a metal reflector (9) provided rotatably inside the waveguide (2) for adjusting the impedance of a load at the heating chamber side by its rotation angle" at set forth in the paragraph number 57 of the front

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page), and a control circuit including different programs for controlling the rotation angle of the reflector 9 according to methods with predetermined time periods from the start of operation of the microwave oven (i.e., the sample has its initial temperature as a first temperature, after being heated to obtain a second higher temperature at the predetermined time period with the rotation of the deflector for adjusting the coupling factor in response to a variation in the type of sample (i.e., dielectric properties which is an inherent characteristic).

Claims 25-33 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

**Remark**

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not show or suggest the position of the deflector is determined based on the amount of measured power of electromagnetic radiation reflected from the applicator.

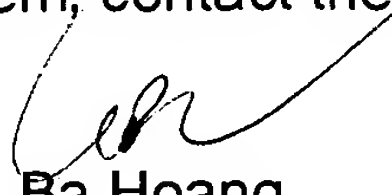
The indicated allowability of claims 23-32 is hereby withdrawn in view of the EP reference. Rejections based on the cited reference set forth above.

Applicant's arguments with respect to the claim have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Ba Hoang whose telephone number is (571) 272-4780. The examiner can normally be reached on Mon-fri from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tu Ba Hoang  
Primary Examiner  
Art Unit 3742

February 04, 2005